Version: V03.50

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S3 (PG 76-28 OK) Mat'l. Code: asco007
(Material Full Name and Material Code)

Binder ID: B1
(Design Type and Design Type ID)

Circle S Paving P/S # m00555
(Producer/Supplier Name and Producer/Supplier Code)

S3qc0361800100
(Mix ID)

Circle S Paving (Clinton, OK) - 200TPH PLANT ID # m00555-01
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
#67 Rock	Dolese Co (Cooperton, OK) P/S # m002723801	25
3/8" Chips	Dolese Co (Cooperton, OK) P/S # m002723801	25
Scrns.	Dolese Co (Cooperton, OK) P/S # m002723801	22
Man. Sand	Martin-Marietta (Snyder, OK) P/S # m002323802	13
Sand (Unlisted Source)	McLemore Sand @ Elk City OK	15

Asphalt Cement: Asphaltic Cement Type PG 76-28 OK, acem001, Coastal Energy (Clinton, OK), m01042
(Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)

Requires Form 93-E0 signed by the Department for production use.
-Oklahoma D.O.T. Materials-

Producer/Supplier:	Dolese Co (Cooperton, OK) P/S # m002723801	Dolese Co (Cooperton, OK) P/S # m002723801	Dolese Co (Cooperton, OK) P/S # m002723801	Martin-Marietta (Snyder, OK) P/S # m002323802	McLemore Sand @ Elk City OK								
Sieve Size	**#67 Rock**	**3/8" Chips**	**Scrns.**	**Man. Sand**	**Sand (Unlisted Source)**				**Comb. Agg.**	***JMF***	***Min.***	***Max.***	***% Tol. (±)***
1 in (25 mm)	100	100	100	100	100				100	***100***	*100*	*100*	*0*
3/4 in (19 mm)	92	100	100	100	100				98	***98***	*91*	*100*	*7*
1/2 in (12.5 mm)	46	100	100	100	100				87	***87***	*80*	*94*	*7*
3/8 in (9.5 mm)	17	97	100	100	100				79	***79***	*72*	*86*	*7*
#4 (4.75 mm)	2	12	98	98	99				53	***53***	*46*	*60*	*7*
#8 (2.36 mm)	1	2	67	67	98				39	***39***	*34*	*44*	*5*
#16 (1.18 mm)	1	1	44	39	97				30	***30***	*26*	*34*	*4*
#30 (.600 mm)	1	1	31	22	88				23	***23***	*19*	*27*	*4*
#50 (.300 mm)	1	1	23	10	40				13	***13***	*9*	*17*	*4*
#100 (.150 mm)	1	1	18	3	14				7	***7***	*4*	*10*	*3*
#200 (.075 mm)	1.0	1.0	14.3	1.2	5.6				4.6	***4.6***	*2.6*	*6.6*	*2*
AC Content %									4.4	***4.4***	*4.0*	*4.8*	*0.4*

	°F (°C)	Required
Mix temperature @ discharge from mixer:	325 (163)	± 20 °F (± 10 °C)
Optimum roadway compaction temperature:	305 (152)	
Laboratory mixing temperature:	325 (163)	
Laboratory compaction temperature:	300 (149)	

Tests on Asphalt Cement	Found
Specific Gravity @ 77 °F	1.0100

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Tests on Compressed Mixtures (@ Design AC)

	# Gyr.	% Density of Gmm	% Density Required
Nini	8	87.9	85.5 - 89.0
Ndes	80		96.0

Tests on Aggregates		Required		Units
Contabro		N/A		%
Durability Index	80	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	98/95	min.	%
Insoluble Residue	8.4	N/A		%
LA Abrasion	26	40	max.	%
Micro-Deval	9.8	25	max.	%
Permeability	3.7	12.5	max.	10^{-5}cm/s
Sand Equivalent	74	50	min.	%
IOC	0.35			%
Gse	2.686			
Gsb	2.654			
Specimen Weight	4875			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required Design / Field	% VMA	% VMA Required Design / Field	% VFA	% VFA Required
4.3	2.395	2.507	95.5		13.6		66.9	
4.8	2.419	2.488	97.2	96.0 / 94.5 - 97.4	13.2	13.5 / 13.0	78.8	70 - 75
5.2	2.448	2.473	99.0		12.6		92.1	

Dust Prop.
1.2
1.0
1.0

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 111 75 min.
TSR 0.84 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 110.1 @ 4.4 % Asphalt Cement

Hamburg Rut Test Depth (mm) 2.83 12.50 max. @ 20,000 cycles

MEETS SPECIFICATION REQUIREMENTS PER SPECIAL PROVISION 708-26(a-f) 09

Comments:

Last Modified By: Smith, Jerry D. jsmith
(User Name and User ID)

Date: 8/23/2018
(mm/dd/yyyy)